Errata List

This errata sheet lists errors and their correction for the doctoral thesis of Saulius Sakavičius, titled "Improvement of Learning-Based Methods for Localization of Multiple Sound Sources" (*Mokymu grįstų metodų keliems garso šaltiniams lokalizuoti tobulinimas*), Vilnius Gediminas Technical University, 2021, scientific book No. 2021-050-M. Pdf link: http://dspace.vgtu.lt/handle/1/4309.

Location	**Error**	**Correction**
Page vii, par. 1, line 10	MAE – Mean ~~Average~~ Error	MAE – Mean Absolute Error
Page 12, par. 3, line 18	Two element acoustic arrays are referred to as binaural arrays ~~(Löllmann et al. 2018)~~.	In the scope of this thesis, two element acoustic arrays are referred to as binaural arrays.
Page 12, par. 3, line 19	<...> (ILD), interaural time difference (ITD) and interaural phase difference (IPD).	<...> (ILD), interaural time difference (ITD) and interaural phase difference (IPD). ILD, IPD and ITD are used not only in context of biological auditory systems, but also in microphone-based auditory systems (Birchfield, Gangishetty 2005). S. T. Birchfield and R. Gangishetty. 2005. Acoustic localization by interaural level difference, in *Proceedings. (ICASSP '05). IEEE International Conference on Acoustics, Speech, and Signal Processing.*, pp. iv/1109-iv/1112 Vol. 4, doi: 10.1109/ICASSP.2005.1416207.
Page 16, par. 3, line 13	Existing source <…> time-difference of arrival (TDoA) information (DiBiase et al. 2001).	"Existing source <…> time-difference of arrival (TDoA) information" (DiBiase *et al.* 2001 p. 158).
Page 17, par. 1, lines 6-17	Overall, the computational requirements <…> environments.	"Overall, the computational <…> environments." (DiBiase *et al.* 2001 p. 159)

Page 17, par. 2, lines 19-29	These algorithms tend to be <…> of decreased resolution.	"These algorithms tend to be <…> of decreased resolution." (DiBiase *et al.* 2001 p. 161)
Page 17, par. 3, lines 30-33	Primarily because <…> are TDoA-based.	"Primarily because <…> TDoA-based." (DiBiase *et al.* 2001 p. 161)
Page 17, par. 4, lines 34-39	The two major sources <…> of the Generalized Cross-Correlation (GCC) function.	"The two major sources of signal degradation which <…> of the Generalized Cross-Correlation (GCC) function." (DiBiase *et al.* 2001 p. 161)
Page 17, par. 5, line 40	In the presence of <…> in realistic enclosures.	"In the presence of <…> in realistic enclosures." (Brandstein, Silverman 1997 p. 375)
Page 18, par. 2, line 7	In the past, some studies <…> in the frequency domain (i.e., convolutional smearing).	"In the past, some <…> in the frequency domain (i.e., convolutional smearing)." (Champagne *et al.* 1996)
Page 18, par. 4, line 10	The most common approach adopted in the sound source localization <…> may lead to wrong TDoA estimates ~~(Champagne et al. 1996)~~.	According to (Champagne et al. 1996) "The most common approach adopted in the sound source localization <…> may lead to wrong TDoA estimates."
Page 18, par. 4, line 21	<…> a coherence measure is the use of GCC-PHAT Knapp, Carter ~~(~~1976).	<…> a coherence measure is the use of GCC-PHAT (Knapp, Carter 1976).
Page 18, par. 6, line 32	Our environment is <…> the source location estimate is $$\vec{x}_s = \arg\min_{\vec{x}} E_{\mathrm{RMS}}(\vec{x}).$$	According to (Do 2009, p. 8) "Our environment is <…> the source location estimate is $$\vec{x}_s = \arg\min_{\vec{x}} E_{\mathrm{RMS}}(\vec{x}).$$ "
Page 22, par. 3, line 17	The signal $x_m(t)$ at microphone <…> called a functional evaluation (fe).	According to (Do 2009 p. 22) "The signal $x_m(t)$ at microphone <…> called a functional evaluation (fe)."

Page 25, par. 5, line 28	Given a windowing function *W*(*t*), <…> which is called disjoint orthogonality ~~(Jourjine et al. 2000)~~.	According to (Jourjine et al. 2000 p. 2): "Given a windowing function *W*(*t*), <…> which is called disjoint orthogonality".
Page 45, par. 4, line 15	One of the earliest approaches to manifold learning is the ISOMAP <…> points ~~Pedregosa *et al.* (2011)~~.	One of the earliest approaches to manifold learning is the ISOMAP <…> points (Tenenbaum *et al.* 2000). Tenenbaum, J. B., De Silva, V., & Langford, J. C. (2000). *A global geometric framework for nonlinear dimensionality reduction*. science, *290*(5500), 2319-2323.
Page 97, par. 5, line 41	<…> signals might not accurately reflect the real-world situation.	<…> signals might not accurately reflect the real-world situation. The dataset presented in this section is provided online at https://github.com/Sakavicius/link-menu-dataset.
Page 134, par. 1, line 1	<…> didžiausias poveikis metodo rezultatams pastebimas uždaroje erdvėje ~~(?)~~.	<…> didžiausias poveikis metodo rezultatams pastebimas uždaroje erdvėje.
Page 143, par. 3, line 14	<…>, naudojant matavimo juostą, kurios ~~tikslumas~~ ±0,005 m.	<…>, naudojant matavimo juostą, kurios paklaida ±0,005 m.

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